MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for March, 1897, is based on 2,764 reports from stations occupied by regular and voluntary observers, classified as follows: 142 from Weather Bureau stations; numerous special river stations; 33 from post surgeons, received through the Surgeon General, U. S. Army; 2,547 from voluntary observers; 96 received through the Southern Pacific Railway Company; 14 from Life-Saving stations, received through the Superintendent United States Life-Saving Service; 32 from Canadian stations; 1 from Hawaii; 20 from Mexican stations. International simultaneous observations are received from a few stations and used together with trustworthy newspaper extracts and special reports.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the meteorological tables contained in the last section are furnished by Mr. A. J. Henry, Chief of the Division of Records and Meteorological Data. Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada, Mr. Curtis J. Lyons, Meteorologist to the Government Survey, Honolulu, and Dr. Mariano Bárcena, Director of the Central Meteorological Observatory of Mexico.

CLIMATOLOGY OF THE MONTH.

GENERAL CHARACTERISTICS.

The month was remarkable for the general character of the paths of the storm centers; for the high winds of the 12th and 14th in the lower Lake Region and on the middle Atlantic Coast and 25th and 27th on the coast of Oregon and Washington; for the heavy snows in the Rocky Mountain Region; for the remarkable rains in the watershed of the lower Mississippi and its tributaries, culminating in a region of 18 inches of rain in the Valley of the Tennessee and causing most destructive floods in the Mississippi River; the abnormally low temperatures in the Dakotas and the Canadian Northwest Provinces and westward to the Pacific Coast; the high temperatures in the Gulf States.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers, not reduced to standard gravity, and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart IV. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

The *mean pressure* during the current month was highest off the south Atlantic Coast and high in Manitoba, Athabasca, and Saskatchewan. It was lowest in Newfoundland and low off the coast of Oregon. The reduced pressures were highest: In the United States, Charleston, S. C., 30.16; Savannah, Wilmington, Raleigh, and Norfolk, 30.14. In Canada, White River, 30.13; Battleford and Swift Current, 30.12. The lowest were: In the United States, Tatoosh Island, 29.87. In Canada, St. Johns, N. F., 29.77.

As compared with the normal for March, the mean pressure was in excess in the Atlantic States and Lake Region, but was deficient on the Pacific Coast. The greatest excesses were: In the United States, Eastport and Block Island, 0.12; Boston, 0.10. In Canada, Yarmouth, 0.10; Edmonton, 0.08; Charlottetown, Chatham, Quebec, Montreal, and Rockliffe, 0.06. The greatest deficits were: In the United States, Tatoosh Island and Fort Canby, 0.15; Concordia, 0.14; Corpus Christi and San Antonio, 0.13; Palestine, 0.12. In Canada, St. Johns, N. F., 0.06; Winnipeg, 0.03; Calgary, 0.02.

As compared with the preceding month of February, the pressures reduced to sea level show a rise on the south Atlantic Coast, as also in the Canadian Northwest Territories and upper Lake Region, but a decided fall in the west Gulf States, southern Plateau Region, and north Pacific Coast. The greatest rises were: In the United States, Norfolk, Hatteras, Raleigh, Wilmington, Charleston, Williston, Havre, and Miles City, 0.05; Kittyhawk, Charlotte, Savannah, and Duluth, 0.04. In Canada, Swift Current, 0.07; Qu'Appelle and St. Johns, N. F., 0.04. The greatest falls were: In the United States, Rapid City, 0.13; Pueblo and Santa Fe, 0.12; Denver Dodge City, and San Antonio, 0.11. In Canada, Quebec and Montreal, 0.06; Kingston, 0.05; Chatham, Father Point, Kingston, and Toronto, 0.04.

AREAS OF HIGH AND LOW PRESSURE.

By Prof. H. A. HAZEN.

During March six high pressure areas and twelve lows were sufficiently well defined to be traced, and their paths are shown on Charts I and II of this REVIEW. As a general thing, the center of the high area can not be determined with the same accuracy as that of the low, and in consequence the paths of the highs are not as definite as those of the lows. The accompanying table gives the principal facts as to the date and location of each high and low, with the duration